

AMENDMENTS TO THE CLAIMS

Please amend claims 1-2 and 4-17, such that the status of the claims is as follows:

1. (Currently amended) A ~~microactuator for selectively altering a position of a transducing head carried by a slider in a disc drive system with respect to a track of a rotatable disc having a plurality of concentric tracks, the disc drive system having an actuator arm attached to a load beam for supporting the slider over the rotatable disc, the load beam having a stationary region and a moving region, the microactuator~~ microactuation system comprising:

a load beam having a stationary region and a moving region;

means for flexibly coupling the stationary region of the load beam to the moving region of the load beam; and

means for selectively altering a position of the slider with respect to the rotatable disc, the means for selectively altering mounted to the means for flexibly coupling and the means for selectively altering extending from a distal end of the stationary region to a proximal end of the moving region generally along a longitudinal centerline of the stationary region.

2. (Currently amended) A ~~microactuator for selectively altering a position of a transducing head carried by a slider in a disc drive system with respect to a track of a rotatable disc having a plurality of concentric tracks, the disc drive system having an actuator arm, the microactuator~~ microactuation system comprising:

a load beam ~~attached to a distal end of the actuator arm, the load beam~~ having a first section;

a flexure for supporting ~~[[the]]~~ a slider carrying ~~[[the]]~~ a transducing head;

a bending motor attached between the first section of the load beam and the flexure, the bending motor being deformable in response to a control signal applied thereto; and

a flexible beam connected between the first section of the load beam and the flexure wherein the bending motor is attached to the flexible beam.

3. (Canceled)

4. (Currently amended) The ~~microactuator~~ microactuation system of claim 2 wherein the bending motor is attached to a top surface of the flexible beam such that the flexible beam supports the bending motor and transforms a force on the flexure into a compressive load on the bending motor.

5. (Currently amended) The ~~microactuator~~ microactuation system of claim 4 wherein the bending motor is constructed from a member of the group consisting of a piezoelectric material, an electroactive ceramic, an electroactive polymer, and an electrostrictive ceramic material.

6. (Currently amended) The ~~microactuator~~ microactuation system of claim 2 wherein the load beam has a second section connected to the flexure, and further wherein the flexible beam is connected between the first section and the second section of the load beam.

7. (Currently amended) The ~~microactuator~~ microactuation system of claim 2 wherein the bending motor comprises:

a bottom electrode;

an electroactive material on top of the bottom electrode, the electroactive material constructed such that it has two portions poled in opposite directions; and

a top electrode on top of the electroactive material;

wherein the electroactive material bends in plane in response to control signals supplied to the bottom electrode and the top electrode.

8. (Currently amended) The ~~microactuator~~ microactuation system of claim 7 wherein the electroactive material is constructed from a member of the group consisting of a piezoelectric material, an electroactive ceramic, an electroactive polymer, and an electrostrictive ceramic material.

9. (Currently amended) The ~~microactuator~~ microactuation system of claim 2 wherein the bending motor comprises:

- a bottom electrode;
 - an electroactive material on top of the bottom electrode, the electroactive material uniformly poled;
 - a first top electrode disposed on top of a first longitudinal half of the electroactive material; and
 - a second top electrode disposed on top of a second longitudinal half of the electroactive material;
- wherein the electroactive material bends in plane in response to control signals supplied to the bottom electrode and the first and second top electrodes.

10. (Currently amended) The ~~microactuator~~ microactuation system of claim 2 wherein the bending motor comprises:

- a bottom electrode;
- a first electroactive element on the bottom electrode;
- a shared electrode on the first electroactive element;
- a second electroactive element on the shared electrode; and
- a top electrode on the second electroactive element.

11. (Currently amended) The ~~microactuator~~ microactuation system of claim 10 wherein the top electrode comprises:

a first top electrode element disposed on top of a first longitudinal half of the electroactive element; and
a second top electrode element disposed on top of a second longitudinal half of the electroactive element.

12. (Currently amended) The ~~microactuator~~ microactuation system of claim 2 wherein the bending motor has a length to width ratio of at least about ten.

13. (Currently amended) A ~~disc drive~~ suspension assembly comprising:

an actuator arm having a proximal end and a distal end;
a load beam attached to the distal end of the actuator arm, the load beam having a mounting region at a proximal end, a head suspension near a distal end of the load beam, and a flexible region between the mounting region and the head suspension;
a flexure configured to support a transducing head;
a beam connected between the head suspension and the flexure; and
a bending motor attached to a top surface of the beam such that the beam supports the bending motor and transforms a force on the flexure into a compressive load on the bending motor, the bending motor being deformable in response to a control signal applied thereto.

14. (Currently amended) The ~~microactuator~~ suspension assembly of claim 13 wherein the beam is constructed from steel and has dimensions such that the in-plane resonance frequency of the beam and the distal portion of the head suspension is less than about three kilohertz.

15. (Currently amended) The ~~microactuator~~ suspension assembly of claim 13 wherein the flexible region of the load beam includes a first flexible beam and a second flexible beam having transverse

creases such that the load beam has a first mode out-of-plane resonance frequency of greater than about two kilohertz and a second mode out-of-plane resonance frequency of greater than about six kilohertz.

16. (Currently amended) The ~~microactuator~~ suspension assembly of claim 13 wherein the bending motor comprises:

- a plurality of piezoelectric elements, the piezoelectric elements deformable in response to an applied electric field;
- a plurality of first and second top electrodes disposed on a top surface of the plurality of piezoelectric elements;
- wherein each set of piezoelectric elements and first and second top electrodes are vertically stacked upon one another.

17. (Currently amended) The ~~microactuator~~ suspension assembly of claim 16 further comprising:

- a first endcap electrically coupled to each of the plurality of first top electrodes;
- a second endcap electrically coupled to each of the plurality of second top electrodes.